

Amendments to the Claims:

This listing of the claims will replace prior versions, and listings, of the claims in the application:

Listing of Claims:

1. (withdrawn) A method for producing a vaccine containing an immunogenic determinant, comprising the steps of:
 - a) exposing extra-cellular pathogenic organisms to stress-inducing stimuli which would induce the production of stress protein/antigenic peptide fragment complexes;
 - b) extracting the endogenous stress-induced products from the treated cells; and
 - c) using the extracted products as the immunogenic determinant in the preparation of the vaccine composition.
2. (withdrawn) The method as claimed in claim 1, wherein the active ingredient of the immunogenic determinant predominantly comprises one or more shock protein/antigenic peptide fragment complexes.
3. (withdrawn) The method as claimed in claim 1, wherein the stress-inducing stimulus is heat.
4. (withdrawn) The method as claimed in claim 3, wherein the pathogenic organism is heated to from 5 to 8°C above the normal temperature for cultivation of the organism.
5. (withdrawn) The method as claimed in claim 1, wherein the pathogenic organism is an extra-cellular procaryotic or protozoan species.

6. (withdrawn) The method as claimed in claim 1, wherein the pathogenic organism is a bacterial, protozoal or fungal species.
7. (withdrawn) The method as claimed in claim 1, wherein the immunogenic determinant is a mixture of heat shock protein/antigenic peptide fragment complexes.
8. (withdrawn) The method as claimed in claim 1, wherein the extra-cellular pathogenic organism has been modified to induce or enhance the induction of the synthesis of stress proteins.
9. (withdrawn) The method as claimed in claim 1, wherein the method is carried out in vitro.
10. (Currently amended) A composition for inducing an immune response to an extracellular pathogenic bacteria, the composition comprising one or more endogenous complexes produced in-situ and extracted from the extracellular pathogenic bacteria between an induced heat shock protein which is derived from the extracellular pathogenic bacteria and ~~a non-heat shock protein derived endogenous~~ an antigenic peptide fragment which is also derived from the extracellular pathogenic bacteria ~~wherein~~ and wherein production of the induced heat shock protein results from the exposure of the extracellular pathogenic bacteria to a stress-inducing heat shock stimulus, and wherein the formation of the endogenous complex between the induced heat shock protein and the antigenic peptide fragment is accomplished in an ATP-dependent reaction.
11. (Currently amended) A composition for inducing an immune response to an extracellular pathogenic bacteria, produced by the method comprising the steps of:
 exposing an extracellular pathogenic bacteria to a stress-inducing heat shock stimulus which induces the production of endogenous heat shock protein/antigenic peptide fragment complexes formed in-situ by said bacteria, wherein the antigenic peptide fragment is derived

from the extracellular pathogenic bacteria, ~~but is not derived from a heat shock protein~~, and wherein the formation of the endogenous in-situ complexes between the induced heat shock protein and the antigenic peptide fragment is accomplished in an ATP-dependent reaction;

extracting the endogenous complexes from said bacteria to provide a composition for inducing an immune response to the pathogenic bacteria from which said extracted complexes are derived.

12. (Previously presented) The composition as claimed in claim 10, wherein the composition comprises an adjuvant for the one or more complexes.

13. (Previously presented) The composition as claimed in claim 10, which is an aqueous composition wherein the composition comprises an aqueous carrier.

14. (Previously presented) A method for inducing an immune response in an animal against infection by an extracellular pathogenic bacteria comprising administering a pharmaceutically acceptable quantity of a composition for inducing an immune response as claimed in claim 10 sufficient to elicit an immune response in the animal to said pathogenic bacteria.

15. (withdrawn) A method for eliciting an immune response from an animal to infection by an intra-cellular pathogenic organism the method comprising:

administering a vaccine containing an immunogenic determinant, the immunogenic determinant being a stress protein/antigenic peptide fragment complex produced in situ from the intra-cellular pathogen, the synthesis of the complex being induced by external stress stimuli or by genetic modification of the pathogen so as to render its synthesis constitutive.

16. (cancelled).

17. (previously presented) The composition according to claim 10, wherein said complexes are obtained by exposing the pathogenic bacteria to heat shock.

18. (cancelled).
19. (New) The composition as claimed in claim 10, wherein the heat shock protein is selected from the group consisting of the GroEL, GroES, DnaK and DnaJ families of proteins.
20. (New) The composition as claimed in claim 10, wherein the heat shock protein is DnaJ.
21. (New) The composition as claimed in claim 10, wherein the heat shock protein is GroEL.
22. (New) The composition as claimed in claim 10, wherein the stress-inducing heat shock stimulus to which the extracellular pathogenic bacteria is exposed is provided at a temperature of 5-8°C above the normal growth temperature of the organism.
23. (New) The composition as claimed in claim 10, wherein the antigenic peptide fragment is generated during antigen processing.